Author Index

Anger, J.P., see Bruneau, C. 183
Arpiainen, V.
– and Lappi, M.
Products from the flash pyrolysis of peat and pine bark 355

Ballistreri, A.
–, Garozzo, D., Giuffrida, M., Impallomeni, G. and Montaudo, G.
Analytical degradation: an approach to the structural analysis of microbial polyesters by different methods 239
Baronnet, F., see Battin, F., 345
Barron, D.A., see Durig, J.R. 37
Batttin, F.
–, Marquaire, P.M., Baronnet, F. and Côme, G.M.
Products of the gas-phase pyrolysis of 1,4-dioxane 345
Billiani, G.H.
–, Vijayakumar, C.T., Fink, J.K. and Lederer, K.
Thermal degradation aspects of model copolymers based on styrene, maleic anhydride, diethyl maleate and diethyl fumarate 221
Bruneau, C.
–, Soyer, N. and Anger, J.P.
Thermal degradation of dibutyltin oxide 183
Bykov, V.I., see Korobkov, V.Yu. 57

Calvert, G.D.
–, Esterle, J.S. and Durig, J.R.
Pyrolysis–gas chromatography/mass spectrometry and pyrolysis–gas chromatography/Fourier transform infrared/flame ionization detection studies of particle size fractions of woody peat 5
Challinor, J.M.
A pyrolysis–derivatisation–gas chromatography technique for the structural elucidation of some synthetic polymers 323
Côme, G.M., see Battin, F. 345
Cross, C.W., see Snyder, A.P. 191
Czernik, S., see Piskorz, J. 127

Davidson, R.G.
Enhancement of evolution profiles in pyrolysis–evolved gas–infrared spectroscopy of polymers 143
De Leeuw, J.W.
– Conference report. 1989 Gordon Research Conference on Analytical Pyrolysis 377
Dentchev, T., see Stoev, G. 335
Dumler, R.
–, Lenoir, D., Thoma, H. and Hutzinger, O.
Thermal formation of polybrominated dibenzofurans from decabromodiphenyl ether in a polybutylene–terephthalate polymer matrix 153
Durig, J.R.
–, Smith, D.F. and Barron, D.A.
Thermal decomposition studies of some organophosphorus compounds 37
Durig, J.R., see Calvert, G.D. 5

Eiceman, G.A., see Snyder, A.P. 191
Esterle, J.S., see Calvert, G.D. 5

Fink, J.K., see Billiani, G.H. 221
Fiquet, J.-M., see Scanlan, F.P. 269

García Domínguez, J.A.
–, Molera, M.J. and Santiuste, J.M.
Slow gas-phase oxidation of diethylacetal 75
Garozzo, D., see Ballistreri, A. 239
Giuffrida, M., see Ballistreri, A. 239
Grigorieva, E.N., see Korobkov, V.Yu. 57
Gusel'nikov, L.E., see Ziegler, U. 87

Hirano, J., see Yamaguchi, S. 159
Hrušák, J., see Tkaczyk, M. 173
Hutzinger, O., see Dumler, R. 153

Impallomeni, G., see Ballistreri, A. 239
Isoda, Y., see Yamaguchi, S. 159

Kalechitz, I.V., see Korobkov, V.Yu. 57
Kaminsky, W.
– and Kummer, A.B.
Fluidized bed pyrolysis of digested sewage sludge 27
Kanazuka, T., see Uemichi, Y. 229
Kettrup, A., see Klusmeier, W. 205, 213
Kim, M.G., see Lee, Y.-K. 49
Kister, J., see Nassoy, P. 255
Klusmeier, W.
–, Ohrbach, K.-H., Kühn, P. and Kettrup, A.
Investigations into the thermal decomposition of selected pesticides 205

Klusmeier, W.
–, Ohrbach, K.-H., Kühn, P. and Kettrup, A.
Investigations into the thermal decomposition of the pesticides Metoxuron and Chloridazon 213
Korobkov, V.Yu.
–, Grigorieva, E.N., Bykov, V.I. and Kalechitz, I.V.
Mechanism and kinetics of thermolysis of ethers modelling the oxygen–methylene 'bridge' bonds in coal organic matter 57
Kühn, P., see Klusmeier, W. 205, 213
Kummer, A.B., see Kaminsky, W. 27

Landais, P.
–, Michels, R., Poty, B. and Monthioux, M.
Pyrolysis of organic matter in cold-seal pressure autoclaves. Experimental approach and applications 103
Lappi, M., see Arpiainen, V. 355
Lattimer, R.P.
Overseas travel for Americans — The image and the expense 1
Lederer, K., see Billiani, G.H. 221
Lee, Y.-K.
–, Kim, M.G. and Whang, K.-J.
Simultaneous determination of natural and styrene–butadiene rubber tire tread particles in atmospheric dusts by pyrolysis–gas chromatography 49
Lenoir, D., see Dumler, R. 153
Liebman, S.A., see Snyder, A.P. 191

Makino, Y., see Uemichi, Y. 229
Marquaire, P.M., see Battin, F. 345
Michels, R., see Landais, P. 103
Molera, M.J., see García Domínguez, J.A. 75
Montaudo, G., see Ballistreri, A. 239
Monthioux, M., see Landais, P. 103
Muller, J.-F., see Nassoy, P. 255
Muller, J.-F., see Scanlan, F.P. 269

Nassoy, P.
–, Scanlan, F.P., Muller, J.-F. and Kister, J.
An analytical investigation of the thermal degradation of a cation-exchange resin — Part 1 255

Ohrbach, K.-H., see Klusmeier, W. 205, 213
Ondruschka, B., see Ziegler, U. 87

Pan, W.-P.
– and Richards, G.N.
Influence of metal ions on volatile products of pyrolysis of wood 117
Pérez, J.D.
– and Yranzo, G.I.
Flash vacuum pyrolysis of 1-benzoylpyrazole 165
Piskorz, J.
–, Radlein, D.St.A.G., Scott, D.S. and Czernik, S.
Pretreatment of wood and cellulose for production of sugars by fast pyrolysis 127
Poty, B., see Landais, P. 103

Radlein, D.St.A.G., see Piskorz, J. 127
Richards, G.N., see Pan, W.-P. 117

Santiuste, J.M., see García Domínguez, J.A. 75
Scanlan, F.P.
–, Muller, J.-F., Ziegler, J.-M. and Fiquet, J.-M.
An analytical investigation of the thermal degradation of a cation-exchange resin — Part 2 269
Scanlan, F.P., see Nassoy, P. 255
Scott, D.S., see Piskorz, J. 127
Shevelkova, L.V., see Ziegler, U. 87
Smith, D.F., see Durig, J.R. 37
Snyder, A.P.
–, Cross, C.W., Liebman, S.A., Eiceman, G.A. and Yost, R.A.
Thermal desorption–tandem mass spectrometry for the detection and identification of formulated products 191
Sojková, I., see Tkaczyk, M. 173
Soyer, N., see Bruneau, C. 183
Stoev, G.
–, Uzunov, D. and Dentchev, T.
Studies on the stabilization of poly(vinyl chloride) with a stabilizer containing nitrate compounds 335

Thoma, H., see Dumler, R. 153
Tkaczyk, M.
–, Hrušák, J. and Sojková, I.
Degradation products of polymer components. Part I. Toxicological aspects of automobile fires 173

Uemichi, Y.
–, Makino, Y. and Kanazuka, T.
Degradation of polypropylene to aromatic hydrocarbons over Pt- and Fe-containing activated carbon catalysts 229
Uzunov, D., see Stoev, G. 335

Vijayakumar, C.T., see Billiani, G.H. 221
Volkova, V.V., see Ziegler, U. 87

Wampler, T.P.
A selected bibliography of analytical pyrolysis applications 1980–1989 291

Whang, K.-J., see Lee, Y.-K. 49

Yamaguchi, S.
–, Hirano, J. and Isoda, Y.
Evaluation of compositional distributions of styrene–maleic anhydride copolymers by thin-layer chromatography/ pyrolysis–gas chromatography 159
Yost, R.A., see Snyder, A.P. 191

Yranzo, G.I., see Pérez, J.D. 165

Ziegler, J.-M., see Scanlan, F.P. 269
Ziegler, U.
–, Zimmermann, G., Ondruschka, B., Gusel'nikov, L.E., Volkova, V.V. and Shevelkova, L.V. Unimolecular thermal reactions of C_5 to C_8 alkynes. Low temperature matrix IR spectroscopic and mass spectrometric studies 87
Zimmermann, G., see Ziegler, U. 87

Subject Index

Activated carbon
Degradation of polypropylene to aromatic hydrocarbons over Pt- and Fe-containing activated carbon catalysts 229
Alkyd resins
A pyrolysis–derivatisation–gas chromatography technique for the structural elucidation of some synthetic polymers 323
Alkynes, C_5–C_8
Unimolecular thermal reactions of C_5 to C_8 alkynes. Low temperature matrix IR spectroscopic and mass spectrometric studies 87
Aromatics
Degradation of polypropylene to aromatic hydrocarbons over Pt- and Fe-containing activated carbon catalysts 229
Atmospheric dust
Simultaneous determination of natural and styrene–butadiene rubber tire tread particles in atmospheric dusts by pyrolysis–gas chromatography 49
Atmospheric pressure chemical ionization
Thermal desorption–tandem mass spectrometry for the detection and identification of formulated products 191
Autoclave
Pyrolysis of organic matter in cold-seal pressure autoclaves. Experimental approach and applications 103
Automobiles
Degradation products of polymer components. Part I. Toxicological aspects of automobile fires 173

Bark
Products from the flash pyrolysis of peat and pine bark 355
1-Benzoylpyrazole
Flash vacuum pyrolysis of 1-benzoylpyrazole 165
Bibliography
A selected bibliography of analytical pyrolysis applications 1980–1989 291
Biomass
Pretreatment of wood and cellulose for production of sugars by fast pyrolysis 127
Brominated diphenyl ethers
Thermal formation of polybrominated dibenzofurans from decabromodiphenyl ether in a polybutylene–terephthalate polymer matrix 153
Butylation
A pyrolysis–derivatisation–gas chromatography technique for the structural elucidation of some synthetic polymers 323

Captafol
Investigations into the thermal decomposition of selected pesticides 205
Catalyst
Degradation of polypropylene to aromatic hydrocarbons over Pt- and Fe-containing activated carbon catalysts 229
Cation-exchange resin
An analytical investigation of the thermal degradation of a cation-exchange resin — Part 1 255
Cation-exchange resin
An analytical investigation of the thermal degradation of a cation-exchange resin — Part 2 269
Cellulose
Pretreatment of wood and cellulose for production of sugars by fast pyrolysis 127
Chloridazon
Investigations into the thermal decomposition of the pesticides Metoxuron and Chloridazon 213
Coal
Pyrolysis of organic matter in cold-seal pressure autoclaves. Experimental approach and applications 103
Coal organic matter
Mechanism and kinetics of thermolysis of ethers modelling the oxygen–methylene 'bridge' bonds in coal organic matter 57
Combustion
Degradation products of polymer components. Part I. Toxicological aspects of automobile fires 173
Controlled thermal processing
Thermal desorption–tandem mass spectrometry for the detection and identification of formulated products 191
Copolymers
Thermal degradation aspects of model copo-

lymers based on styrene, maleic anhydride, diethyl maleate and diethyl fumarate 221

Decabromodiphenyl ether
Thermal formation of polybrominated dibenzofurans from decabromodiphenyl ether in a polybutylene–terephthalate polymer matrix 153
Derivatisation
A pyrolysis–derivatisation–gas chromatography technique for the structural elucidation of some synthetic polymers 323
Desulphonation
An analytical investigation of the thermal degradation of a cation-exchange resin – Part 1 255
Dibutyltin oxide
Thermal degradation of dibutyltin oxide 183
Diethylacetal
Slow gas-phase oxidation of diethylacetal 75
Diethyl fumarate
Thermal degradation aspects of model copolymers based on styrene, maleic anhydride, diethyl maleate and diethyl fumarate 221
Diethyl maleate
Thermal degradation aspects of model copolymers based on styrene, maleic anhydride, diethyl maleate and diethyl fumarate 221
Dioxane
Products of the gas-phase pyrolysis of 1,4-dioxane 345

Ethers, aromatic
Mechanism and kinetics of thermolysis of ethers modelling the oxygen–methylene 'bridge' bonds in coal organic matter 57
Evolution profiles
Enhancement of evolution profiles in pyrolysis–evolved gas–infrared spectroscopy of polymers 143
Evolved gas analysis
Enhancement of evolution profiles in pyrolysis–evolved gas–infrared spectroscopy of polymers 143

Flame ionization detection
Pyrolysis–gas chromatography/mass spectrometry and pyrolysis–gas chromatography/Fourier transform infrared/flame ionization detection studies of particle size fractions of woody peat 5
Flash vacuum pyrolysis
Flash vacuum pyrolysis of 1-benzoylpyrazole 165
Fluidized beds
Fluidized bed pyrolysis of digested sewage sludge 27

Fourier transform infrared spectroscopy
Pyrolysis–gas chromatography/mass spectrometry and pyrolysis–gas chromatography/Fourier transform infrared/flame ionization detection studies of particle size fractions of woody peat 5
Fourier transform infrared spectroscopy
Thermal decomposition studies of some organophosphorus compounds 37
Fourier transform infrared spectroscopy
An analytical investigation of the thermal degradation of a cation-exchange resin – Part 1 255

Gas chromatography
Pyrolysis–gas chromatography/mass spectrometry and pyrolysis–gas chromatography/Fourier transform infrared/flame ionization detection studies of particle size fractions of woody peat 5
Gas chromatography
Thermal decomposition studies of some organophosphorus compounds 37
Gas chromatography
Simultaneous determination of natural and styrene–butadiene rubber tire tread particles in atmospheric dusts by pyrolysis–gas chromatography 49
Gas chromatography
Evaluation of compositional distributions of styrene–maleic anhydride copolymers by thin-layer chromatography/pyrolysis–gas chromatography 159
Gas chromatography
Degradation products of polymer components. Part I. Toxicological aspects of automobile fires 173
Gas chromatography
Thermal degradation aspects of model copolymers based on styrene, maleic anhydride, diethyl maleate and diethyl fumarate 221
Gas chromatography
An analytical investigation of the thermal degradation of a cation-exchange resin – Part 1 255
Gas chromatography
An analytical investigation of the thermal degradation of a cation-exchange resin – Part 2 269
Gas chromatography
A pyrolysis–derivatisation–gas chromatography technique for the structural elucidation of some synthetic polymers 323
Gas chromatography
Studies on the stabilization of poly(vinyl chloride) with a stabilizer containing nitrate compounds 335

Gas chromatography
Products from the flash pyrolysis of peat and pine bark 355
Gel permeation chromatography
Products from the flash pyrolysis of peat and pine bark 355
Glucose
Pretreatment of wood and cellulose for production of sugars by fast pyrolysis 127

Herbicides
Investigations into the thermal decomposition of the pesticides Metoxuron and Chloridazon 213
β-Hydroxybutyrate
Analytical degradation: an approach to the structural analysis of microbial polyesters by different methods 239
β-Hydroxyvalerate
Analytical degradation: an approach to the structural analysis of microbial polyesters by different methods 239

Infrared spectroscopy
Unimolecular thermal reactions of C_5 to C_8 alkynes. Low temperature matrix IR spectroscopic and mass spectrometric studies 87
Infrared spectroscopy
Enhancement of evolution profiles in pyrolysis–evolved gas–infrared spectroscopy of polymers 143
Infrared spectroscopy
Thermal degradation aspects of model copolymers based on styrene, maleic anhydride, diethyl maleate and diethyl fumarate 221

Kerogen
Pyrolysis of organic matter in cold-seal pressure autoclaves. Experimental approach and applications 103
Kinetics, reaction
Mechanism and kinetics of thermolysis of ethers modelling the oxygen–methylene 'bridge' bonds in coal organic matter 57

Labelling, ^{14}C
Slow gas-phase oxidation of diethylacetal 75
Laser microprobe mass analysis
An analytical investigation of the thermal degradation of a cation-exchange resin — Part 1 255
Laser microprobe mass analysis
An analytical investigation of the thermal degradation of a cation-exchange resin — Part 2 269

Maleic anhydride
Evaluation of compositional distributions of styrene–maleic anhydride copolymers by thin-layer chromatography/pyrolysis–gas chromatography 159
Maleic anhydride
Thermal degradation aspects of model copolymers based on styrene, maleic anhydride, diethyl maleate and diethyl fumarate 221
Mass spectrometry
Pyrolysis–gas chromatography/mass spectrometry and pyrolysis–gas chromatography/Fourier transform infrared/flame ionization detection studies of particle size fractions of woody peat 5
Mass spectrometry
Unimolecular thermal reactions of C_5 to C_8 alkynes. Low temperature matrix IR spectroscopic and mass spectrometric studies 87
Mass spectrometry
Flash vacuum pyrolysis of 1-benzoylpyrazole 165
Mass spectrometry
Degradation products of polymer components. Part I. Toxicological aspects of automobile fires 173
Mass spectrometry
Thermal degradation aspects of model copolymers based on styrene, maleic anhydride, diethyl maleate and diethyl fumarate 221
Mass spectrometry
Analytical degradation: an approach to the structural analysis of microbial polyesters by different methods 239
Mass spectrometry
An analytical investigation of the thermal degradation of a cation-exchange resin — Part 1 255
Mass spectrometry
An analytical investigation of the thermal degradation of a cation-exchange resin — Part 2 269
Metal ions
Influence of metal ions on volatile products of pyrolysis of wood 117
Methylation
A pyrolysis–derivatisation–gas chromatography technique for the structural elucidation of some synthetic polymers 323
Metolachlor
Investigations into the thermal decomposition of selected pesticides 205
Metoxuron
Investigations into the thermal decomposition of the pesticides Metoxuron and Chloridazon 213
Microbial polyesters
Analytical degradation: an approach to the structural analysis of microbial polyesters by different methods 239

Natural rubber
Simultaneous determination of natural and styrene–butadiene rubber tire tread particles in atmospheric dusts by pyrolysis–gas chromatography 49
Nuclear magnetic resonance spectroscopy
An analytical investigation of the thermal degradation of a cation-exchange resin — Part 1 255

Organophosphorus compounds
Thermal decomposition studies of some organophosphorus compounds 37

Peat
Pyrolysis–gas chromatography/mass spectrometry and pyrolysis–gas chromatography/Fourier transform infrared/flame ionization detection studies of particle size fractions of woody peat 5
Peat
Products from the flash pyrolysis of peat and pine bark 355
Pesticides
Investigations into the thermal decomposition of selected pesticides 205
Pesticides
Investigations into the thermal decomposition of the pesticides Metoxuron and Chloridazon 213
Pharmaceutical analysis
Thermal desorption–tandem mass spectrometry for the detection and identification of formulated products 191
Phenolic resins
A pyrolysis–derivatisation–gas chromatography technique for the structural elucidation of some synthetic polymers 323
Polybutylene–terephthalate
Thermal formation of polybrominated dibenzofurans from decabromodiphenyl ether in a polybutylene–terephthalate polymer matrix 153
Polyesters
A pyrolysis–derivatisation–gas chromatography technique for the structural elucidation of some synthetic polymers 323
Polymers
Simultaneous determination of natural and styrene–butadiene rubber tire tread particles in atmospheric dusts by pyrolysis–gas chromatography 49
Polymers
Enhancement of evolution profiles in pyrolysis–evolved gas–infrared spectroscopy of polymers 143
Polymers
Thermal formation of polybrominated dibenzofurans from decabromodiphenyl ether in a polybutylene–terephthalate polymer matrix 153
Polymers
Evaluation of compositional distributions of styrene–maleic anhydride copolymers by thin-layer chromatography/pyrolysis–gas chromatography 159
Polymers
Degradation products of polymer components. Part I. Toxicological aspects of automobile fires 173
Polymers
Analytical degradation: an approach to the structural analysis of microbial polyesters by different methods 239
Polymers
An analytical investigation of the thermal degradation of a cation-exchange resin — Part 2 269
Polymers
Studies on the stabilization of poly(vinyl chloride) with a stabilizer containing nitrate compounds 335
Poly(methyl methacrylate)
Enhancement of evolution profiles in pyrolysis–evolved gas–infrared spectroscopy of polymers 143
Polypropylene
Degradation of polypropylene to aromatic hydrocarbons over Pt- and Fe-containing activated carbon catalysts 229
Polyurethanes
Enhancement of evolution profiles in pyrolysis–evolved gas–infrared spectroscopy of polymers 143
Polyvinyl acetate
A pyrolysis–derivatisation–gas chromatography technique for the structural elucidation of some synthetic polymers 323
Poly(vinyl chloride)
Studies on the stabilization of poly(vinyl chloride) with a stabilizer containing nitrate compounds 335
Pressure
Pyrolysis of organic matter in cold-seal pressure autoclaves. Experimental approach and applications 103

Radiochromatographic analysis
Slow gas-phase oxidation of diethylacetal 75
Reaction mechanism
Slow gas-phase oxidation of diethylacetal 75
Reaction mechanism
Unimolecular thermal reactions of C_5 to C_8

alkynes. Low temperature matrix IR spectroscopic and mass spectrometric studies 87
Reaction mechanism
Pretreatment of wood and cellulose for production of sugars by fast pyrolysis 127
Reaction mechanism
Products of the gas-phase pyrolysis of 1,4-dioxane 345

Sewage
Fluidized bed pyrolysis of digested sewage sludge 27
Sludges, sewage
Fluidized bed pyrolysis of digested sewage sludge 27
Stabilizers
Studies on the stabilization of poly(vinyl chloride) with a stabilizer containing nitrate compounds 335
Stoichiometry
Slow gas-phase oxidation of diethylacetal 75
Styrene
Evaluation of compositional distributions of styrene–maleic anhydride copolymers by thin-layer chromatography/pyrolysis–gas chromatography 159
Styrene
Thermal degradation aspects of model copolymers based on styrene, maleic anhydride, diethyl maleate and diethyl fumarate 221
Styrene–butadiene rubber
Simultaneous determination of natural and styrene–butadiene rubber tire tread particles in atmospheric dusts by pyrolysis–gas chromatography 49

Tandem mass spectrometry
Thermal desorption–tandem mass spectrometry for the detection and identification of formulated products 191
Tar
Products from the flash pyrolysis of peat and pine bark 355
Tetrabutylammonium hydroxide
A pyrolysis–derivatisation–gas chromatography technique for the structural elucidation of some synthetic polymers 323
Tetramethylammonium hydroxide
A pyrolysis–derivatisation–gas chromatography technique for the structural elucidation of some synthetic polymers 323
Thermal decomposition
Thermal decomposition studies of some organophosphorus compounds 37
Thermal decomposition
Thermal degradation of dibutyltin oxide 183
Thermal decomposition
Investigations into the thermal decomposition of selected pesticides 205
Thermal decomposition
Investigations into the thermal decomposition of the pesticides Metoxuron and Chloridazon 213
Thermal degradation
Degradation of polypropylene to aromatic hydrocarbons over Pt- and Fe-containing activated carbon catalysts 229
Thermal degradation
An analytical investigation of the thermal degradation of a cation-exchange resin — Part 1 255
Thermal degradation
An analytical investigation of the thermal degradation of a cation-exchange resin — Part 2 269
Thermal desorption 191
Thermal desorption–tandem mass spectrometry for the detection and identification of formulated products 191
Thermolysis
Mechanism and kinetics of thermolysis of ethers modelling the oxygen–methylene 'bridge' bonds in coal organic matter 57
Thin-layer chromatography
Evaluation of compositional distributions of styrene–maleic anhydride copolymers by thin-layer chromatography/pyrolysis–gas chromatography 159
Tire tread
Simultaneous determination of natural and styrene–butadiene rubber tire tread particles in atmospheric dusts by pyrolysis–gas chromatography 49
Travel
Overseas travel for Americans — The image and the expense 1

Waste water
Fluidized bed pyrolysis of digested sewage sludge 27
Wood
Influence of metal ions on volatile products of pyrolysis of wood 117
Wood
Pretreatment of wood and cellulose for production of sugars by fast pyrolysis 127
Wood
Products from the flash pyrolysis of peat and pine bark 355